

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (Currently amended): A method for constructing a superconducting cable comprising N phases, the method comprising the steps of

- providing each phase in the cable in the form of a number of phase conductors,
- classifying the phase-conductors in N-phase groups, each N-phase group comprising a phase conductor from each of the N different phases, where N is greater than one, and where the number of N-phase groups is larger than or equal to two,
- arranging insulation means in the cable around each phase conductor or between assemblies of phase conductors, and providing that said N-phase groups are electrically insulated from each other, and
- providing the N-phase groups or assemblies of N-phase groups with a common electrically conductive screen.

Claim 2 (Original): A method according to claim 1, wherein the individual phases only contain superconducting cable wire and an insulation system.

Claim 3 (Currently amended): A method according to claim 1 or 2, wherein the N-phase groups are arranged in a number of coaxial

groups, either with ~~several~~ different phase conductors corresponding to different phases in each coaxial layer or with each individual phase conductor of a particular phase in a separate coaxial layer.

Claim 4 (Original): A method according to claim 1 or 2, wherein the N-phase groups or each of the assemblies of N-phase groups are arranged so that the phase conductors form N flat phases.

Claim 5 (Currently amended): A method according to claim 1 or 2, wherein each of the phases is constructed by one or ~~moreseveral~~ individual conductors such as tapes.

Claim 6 (Previously presented): A method according to claim 1, wherein all N-phase groups are gathered in one assembly which is surrounded by the common electrical screen.

Claim 7 (Currently amended): A method for constructing a superconducting cable comprising N phases, the method comprising the steps of:

providing each phase in the cable in the form of a number of phase conductors;

classifying the phase-conductors in N-phase groups, each N-phase group comprising a phase conductor from each of the N different phases, where N is greater than one, and where the number of N-phase groups is larger than or equal to two,

arranging insulation means in the cable around each phase conductor or between assemblies of phase conductors, and providing that said N-phase groups are electrically insulated from each other; and

providing the N-phase groups or assemblies of N-phase groups with a common electrical screen, wherein all N-phase groups are gathered in one assembly which is surrounded by the common electrical screen, and ~~A method according to claim 6,~~ wherein the N phases are arranged concentrically with concentric insulation between each of the N phases.

Claim 8 (Original): A method according to claim 1, wherein the phases in each N-phase group or assembly of N-phase groups are separately and electrically isolated from each other.

Claim 9 (Currently amended): A method for constructing a superconducting cable comprising N phases, the method comprising the steps of:

providing each phase in the cable in the form of a number of phase conductors;

classifying the phase-conductors in N-phase groups, each N-phase group comprising a phase conductor from each of the N different phases, where N is greater than one, and where the number of N-phase groups is larger than or equal to two;

arranging insulation means in the cable around each phase conductor or between assemblies of phase conductors, and

providing that said N-phase groups are electrically insulated from each other; and

providing the N-phase groups or assemblies of N-phase groups with a common electrical screen~~A method according to claim 1~~, wherein the phases in each N-phase group or assembly of N-phase groups are isolated from each other by a common insulator.

Claim 10 (Original): A method according to claim 1, wherein the number of N-phase groups is larger than 10.

Claim 11 (Original): A method according to claim 1, wherein the electrical screen is kept at 0 potential and consists fully or partially of superconducting, metallic, and semiconducting materials or of a combination of these materials with non-conducting materials and composites and is positioned close to the electrically insulating material.

Claim 12 (Previously presented): A method according to claim 1, wherein the individual phases in each N-phase group or assembly of N-phase groups have such permittivity that the individual phases co-operate magnetically.

Claim 13 (Original): A method according to claim 1, wherein at least one of the phases is constituted by a neutral conductor.

Claim 14 (Currently amended): A superconducting cable consisting of N phases, wherein each phase in the cable comprises a number of phase conductors, the phase-conductors having been classified into N-phase groups, each N-phase group comprising a phase conductor from each of the N different phases, where N is greater than one, and where the number of N-phase groups is larger than or equal to two, and wherein insulation means have been arranged in the cable around each phase conductor or between assemblies of phase conductors, and so that said N-phase groups are electrically insulated from each other, and one or more of the N-phase groups or assemblies of N-phase groups has/have been provided with a common electrically conductive screen.

Claim 15 (Original): A method according to claim 1, wherein the number of N-phase groups is larger than 100.